AMENDMENTS TO THE CLAIMS:

At page 16, line 1, please amend the current heading as follows:

~~Patent claims~~WHAT IS CLAIMED IS:

This listing of the claims replaces all prior versions, and listings, of the claims in the application.

Listing of Claims:

1. (Currently amended) ~~Process~~A method for determining ~~the~~a PMD-induced outage probability of an optical transmission system, which includes an optical transmission line ~~(10, 11, 12, 13a, 13b, 14, 15, 20) comprising~~having at least one optical input and at least one optical output, during a specified/specifiable observation period ~~(T_{total}),~~ comprising:

~~and~~ within the observation period ~~which~~and in at least ~~in~~ one first position of the transmission line ~~(10, 11, 12, 13a, 13b, 14, 15, 20) the~~, changing polarization states of the optical transmission system and/or ~~the~~ optical signals transmitted by the optical transmission system ~~are changed~~ by bringing a targeted intervention to bear,

~~and~~ at a second position, which is interposed at least one place downstream from the first position of the optical transmission line ~~(10, 11, 12, 13a, 13b, 14, 15, 20)~~, quantitatively measuring at least one specified/specifiable signal characteristic ~~(BER) is qualitatively measured and checked~~,

checking the signal characteristic for compliance with a specified/specifiable threshold condition ~~(BER_{th}),~~

~~and~~ calculating the PMD-induced outage probability of the optical transmission system ~~is calculated~~ on the basis of ~~the~~a ratio ~~between the~~of a length of time ~~(T_{out})~~ during which the measured signal characteristic fails to meet the threshold condition ~~(BER_{th}) and the~~ to a length of the observation period ~~(T_{total})~~.

2. (Currently amended) ~~Process in accordance with Claim 1, further characterized by the fact that the process~~The method of claim 1, wherein the method is applied to an optical transmission line ~~(10, 11, 12, 13a, 13b, 14, 15, 20)~~ which ~~comprises~~includes a first optical element ~~(10) and~~, a second optical element ~~(20)~~, and a multitude of additional optical elements ~~(11, 12, 13a, 13b, 14, 15)~~ imposed between the first optical element and the second optical element,

wherein the changes of the polarization states of the optical transmission system and/or the signals transmitted by the optical transmission system are carried out at the position of the first element ~~(10)~~ and/or the additional optical elements ~~(11, 12, 13a, 13b, 14, 15)~~, and the measurement of the at least one signal ~~characteristics (BER)~~characteristic is carried out at or close to the second optical element ~~(20)~~.

3. (Currently amended) ~~Process in accordance with the above Claim, further characterized by the fact that~~The method of claim 2, wherein the at least one signal ~~characteristics (BER) are~~characteristic is either directly measured or indirectly determined at the second optical element ~~(20)~~.

4. (Currently amended) ~~Process in accordance with the above Claim, further characterized by the fact that~~The

method of claim 3, wherein the at least one signal characteristic is indirectly determined by diverting a part of the transmitted optical signals ~~for the indirect determination are diverted~~ upstream of the second optical element ~~(20)~~.

5. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that~~The method of claim 1, wherein the change in the polarization states of the optical transmission and/or the optical signals transmitted by the optical transmission system are implemented by launching and/or ~~transmission of~~transmitting the optical signals with varied polarization states ~~which are to be transmitted~~.

6. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that~~The method of claim 1, wherein during the observation period ~~(T_{total})~~, a multitude of the polarization states are tested ~~through~~ simultaneously or successively during the observation period, ~~particularly if these are tested in an automated manner, and~~

wherein for ~~the~~ respective settings or combinations of settings, the at least one signal ~~characteristics (BER) are~~characteristic is correspondingly measured and checked against the threshold condition ~~(BER_{th})~~, and

wherein ~~the PMD-induced outage probability of the optical transmission system may be calculated on the basis of~~ the ratio is a ratio ~~of the~~a sum of all shares of the time ~~(T_{out-n})~~, during which the signal characteristics measured fail to meet the threshold condition ~~(BER_{th})~~, to the observation period ~~(T_{total})~~.

7. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that~~The method of claim 1, wherein the method is carried out using a digital or analog signal ~~is used for carrying out the process~~.

8. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that~~The method of claim 1, wherein the signal characteristic is measured as a characteristic selected from the group consisting of ~~the~~a bit error rate ~~(BER)~~, an eye diagram, ~~or the~~and an amplitude of the signal.

9. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that~~The method of claim 1, further comprising specifying a maximum and/or a minimum signal characteristic value ~~is specified~~ as a threshold value.

10. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that~~ The method of claim 1, further comprising modifying the optical transmission system for carrying out the process ~~is modified~~ in its entirety ~~in such a manner~~ so that the outage probability of the optical transmission system is determined for the modified transmission system and the outage probability of the optical transmission system is determined without modification by inference.

11. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that for carrying out the process~~ The method of claim 1, further

comprising introducing an attenuator ~~is introduced~~ to reduce the observation period, for carrying out the method.

12. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that~~ The method of claim 1, wherein changing the polarization states is accomplished by using at least one polarization controller ~~(P-CON 13a)~~ and/or at least one polarization scrambler ~~(P-SCR1, P-SCR2, 11, 13b) are used to vary the polarization states~~.

13. (Currently amended) ~~Process in accordance with one of the above Claims, further characterized by the fact that the process is applied to~~ The method of claim 1, wherein the optical transmission line is a real optical transmission line.

14. (Currently amended) ~~Process in accordance with one of the above Claims 1 to 12, further characterized by the fact that the process is applied~~The method of claim 1, wherein the method is applied in the form of a computer simulation to a model of an optical transmission line.

15. (Currently amended) ~~Use~~A use of an optical transmission system to carry out the ~~process in accordance with one of the above claims~~method of claim 1.

16. (Currently amended) ~~Apparatus to carry out a process~~An apparatus for carrying out a method for the determination of a PMD-induced outage probability of an optical transmission system which has an optical transmission line ~~(10, 11, 12, 13a, 13b, 14, 15, 20)~~

~~comprising~~ that includes at least one optical input and at least one optical output, comprising:

~~whereby the apparatus possesses~~ a device for applying a targeted intervention during a specified/specifiable observation period ~~(T_{total})~~ in at least one first position of the optical transmission line ~~(10, 11, 12, 13a, 13b, 14, 15, 20) in such a manner~~ so that ~~the~~ polarization states of the optical transmission system and/or ~~the~~ signals transmitted by the optical polarization system are modifiable,

a device for ~~the qualitative measurement of~~ qualitatively measuring the specified/specifiable observation period ~~(T_{total})~~ of at least one specified/specifiable signal characteristic ~~(BER)~~ at a second position which is interposed in at least one place downstream from the first position of the optical transmission line ~~(10, 11, 12, 13a, 13b, 14, 15, 20)~~,

a device for checking the measured signal characteristic ~~(BER)~~ in relation to a specified/specifiable threshold value ~~(BER_{th})~~, and

a device for calculating ~~the~~a ratio of the share of a time period ~~(T_{out})~~, during which the measured signal characteristic has failed to meet the threshold condition ~~(BER_{th})~~, to the observation period ~~(T_{total})~~.

17. (New) The method of claim 6, wherein the multitude of the polarization states are tested in an automated manner.